

## SEQUENCE LISTING

JC09 Rec'd PCT/PTO 18 OCT 2005

&lt;110&gt; SEKISUI CHEMICAL CO., LTD.

&lt;120&gt; IMMUNOGEN, COMPOSITION FOR IMMUNOLOGICAL USE, AND METHOD OF PRODUCING ANTIBODY USING THE SAME

&lt;130&gt; P0001632

&lt;150&gt; JP2003-114503

&lt;151&gt; 2003-04-18

&lt;160&gt; 20

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 1647

&lt;212&gt; DNA

&lt;213&gt; Escherichia coli

&lt;400&gt; 1

atggcagcta aagacgtaaa attcggtaac gacgctcgta tgaaaatgct ggcggcgta 60

aacgtactgg cagatgcagt gaaagttacc ctgggtccaa aaggccgtaa cgtagttctg 120

gataaatctt tcgggtgcacc gaccatcacc aaagatggtg tttccgttgc tcgtgaaatc 180

gaactggaag acaagttcga aaatatgggt gcgcagatgg tgaaagaagt tgcctctaaa 240

gcaaacgacg ctgcaggcga cggtaccacc actgcaaccg tactggctca ggctatcatc 300

actgaaggtc tgaaagctgt tgctgcgggc atgaacccga tggacctgaa acgtggtatac 360

gacaaagcgg ttaccgctgc agttgaagaa ctgaaagcgc tgtccgtacc atgctctgac 420

tctaaagcga ttgctcaggt tggtaccatc tccgctaact ccgacgaaac cgtaggtaaa 480

ctgatcgctg aagcgatgga caaagtgcgt aaagaaggcg ttatcaccgt tgaagacgg 540

accggctgc aggacgaact ggacgtggtt gaaggtatgc agttcgaccg tggctacctg 600

tctccttact tcatcaacaa gccggaaact ggcgcagtag aactggaaag cccgttcatc 660

ctgctggctg acaagaaaat ctccaacatc cgcgaaatgc tgccggttct ggaagctgtt	720
gccaaaggcag gcaaaccgct gctgatcatc gctgaagatg tagaaggcga agcgctggca	780
actgctgttg ttaacaccat tcgtggcatc gtgaaagtgc ctgcggtaa agcaccgggc	840
ttcggcgatc gtcgtaaagc tatgctgcag gatatcgaa ccctgactgg cggtaccgtg	900
atctctgaag agatcggtat ggagctggaa aaagcaaccc tggaagacct gggtcaggct	960
aaacgtgttg tcatcaacaa agacaccacc actatcatcg atggcgtggg tgaagaagct	1020
gcaatccagg gccgtgttgc tcagatccgt cagcagattg aagaagcaac ttctgactac	1080
gaccgtgaaa aactgcagga acgcgttagcg aaactggcag gcggcgttgc agttatcaaa	1140
gtgggtgctg ctaccgaagt taaaatgaaa gagaaaaaaag cacgcgttga agatgccctg	1200
cacgcgaccc gtgctgcggt agaagaaggc gtgggtgctg gtgggtgtgt tgcgctgatc	1260
cgcgtacgt ctactggc tgacactgcgt ggtcagaacg aagaccagaa cgtgggtatc	1320
aaagttgcac tgcgtcaat ggaagctccg ctgcgtcaga tcgtattgaa ctgcggcgaa	1380
gaaccgtctg ttgttctaa caccgttaaa ggcggcgacg gcaactacgg ttacaacgca	1440
gcaaccgaag aatacggcaa catgatcgac atgggtatcc tggatccaac caaagtaact	1500
cgttctgctc tgcagtacgc agcttctgtg gctggcctga tgatcaccac cgaatgcatt	1560
gttaccgacc tgccgaaaaa cgatgcagct gacttaggcgtgctgctggcgg tatggcggc	1620
atgggtggca tggcgccat gatgtaa	1647

<210> 2

<211> 42

<212> DNA

<213> Artificial

<220>

<223> Designed oligonucleotide primer for PCR

<400> 2

agccactagt gcagctaaag acgtaaaatt cggttaacgac gc 42

<210> 3  
<211> 44  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 3  
acgcctctaga catcatgccg ccgatgccac ccatgccgcc cata 44

<210> 4  
<211> 40  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide linker

<400> 4  
ggtcttagatg gaagttctgt tccagggtcc ggagatctcc 40

<210> 5  
<211> 40  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide linker

<400> 5  
ggagatctcc ggaccctgga acagaacttc catctagacc 40

<210> 6  
<211> 1266  
<212> DNA  
<213> Homo sapiens

<400> 6  
atggatgtgc tcagccctgg tcagggcaac aacaccacat caccaccggc tcccttttag 60  
accggcggca acactactgg tatctccgac gtgaccgtca gctaccaagt gatcacctct 120  
ctgctgctgg gcacgctcat cttctgcgcg gtgctggca atgcgtgcgt ggtggctgcc 180  
atcgcccttgg agcgctccct gcagaacgtg gccaaattatc ttattggctc tttggcggtc 240  
accgacctca tggtgtcggt gttggtgctg cccatggccg cgctgtatca ggtgctcaac 300  
aagtggacac tgggcccaggtaaacctgcgac ctgttcatcg ccctcgacgt gctgtgctgc 360  
acctcatcca tcttgcacct gtgcgccatc gcgctggaca ggtactggc catcacggac 420  
cccatcgact acgtgaacaa gaggacgccc cggccgcgtg cgctcatctc gctcaacttgg 480  
cttattggct tcctcatctc tatcccgccc atcctggct ggccgcacccc ggaagaccgc 540  
tcggaccccg acgcatgcac cattagcaag gatcatggct acactatcta ttccaccttt 600  
ggagcttct acatcccgt gctgctcatg ctggttctct atgggcgcatttccgagct 660  
gcfgcgttcc gcatccgcaa gacggtaaaa aaggtggaga agaccggagc ggacacccgc 720  
catggagcat ctcccgcccc gcagcccaag aagagtgtga atggagagtc ggggagcagg 780  
aactggaggc tgggcgtgga gagcaaggct gggggtgctc tgtgcgc当地 tggcgcgg 840  
aggcaaggtg acgatggcgc cgcctggag gtgatcgagg tgcaccgagt gggcaactcc 900  
aaagagcact tgcctctgcc cagcgaggct ggtcctaccc cttgtgc当地 cgcctttc 960  
gagagggaaaa atgagcgcaa cgccgaggcg aagcgcaaga tggccctggc ccgagagagg 1020  
aagacagtga agacgctggg catcatcatg ggcacccctca tcctctgctg gctgc当地 1080  
ttcatcggttgg ctcttgc当地 ggc当地tgc gagagcagct ggc当地atgcc caccctgttgc 1140  
ggccgc当地aa tcaattggct gggctactcc aactctctgc ttaacccgt catttacgca 1200  
tacttcaaca aggacttca aaacgcgtt aagaagatca ttaagtgtaa cttctgc当地 1260  
cagtga 1266

<210> 7  
<211> 29  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 7  
agccagatct atggatgtgc tcagccctg 29

<210> 8  
<211> 29  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 8  
agccctcgag ctggcggcag aagttacac 29

<210> 9  
<211> 1641  
<212> DNA  
<213> *Thermococcus* sp. KS-1

<400> 9  
atggccca cttgcaggcca gccagttgtt attctacacctg aggaaactca gaggtacgtt 60  
  
ggaagggacg cccagaggct caacattctt gctgccagga ttatagccga gacggttaga 120  
  
accacccttg gaccaaaggaa atatggacaag atgctcggtt acagcctcgg cgacatcgtc 180  
  
atcaccaacg acggtgcaac cattctcgac gagatggaca tccagcaccc tgctgctaag 240  
  
atgatggttt gagggtctaa gactcaggat aaggaggctg gtgtatggta tactactgct 300  
  
gttgttattt ctgggtgagct tctgaggaag gctgaggagc ttctcgacca gaacattcac 360

ccgagcataa tcatcaaggg ctacgccctc gcagcagaga aagcccagga aataactcgac	420
gagatagcca aggacgttga cgtcgaggac agggagattc tcaagaaggc cgcggtcacc	480
tccatcaccg gaaaggccgc cgaggaggag agggagtacc tcgctgagat agcagtttag	540
gccgtcaagc aggttgcga gaaggttggc gagacctaca aggtcgaccc cgacaacatc	600
aagttcgaga agaaggaagg tggaagcgtc aaggacaccc agtcataaa gggtgtcg	660
atcgacaagg aggtcgta cccaggcatg ccgaagaggg tcgagggtgc taagatcgcc	720
ctcatcaacg aggcccttga ggtcaaggag actgagaccg acgccgagat caggatcacc	780
agcccgaggc agctccaggc cttcctttag caggaggaga agatgctcag ggagatggtc	840
gacaagatca aggaggtcgg cgcgaacgtc gtgtcgcc agaagggcat tgacgac	900
gcccagcact acctggccaa gtacggcata atggcagtca ggagggtaa gaagagcgc	960
atggagaagc tcgccaaggc cactggagct aagatcgta ccaacgtccg cgacccatc	1020
ccggaggacc tcggtgaggc cgagctcg tcgagcaggaa aggtcgccgg cgagaacatg	1080
atcttcgtcg agggctgcaa gaacccgaag gcagtgacaa tactcatcag gggcggtacc	1140
gagcacgtcg ttgacgaggt cgagagggcc ctcgaggatg ccgtcaaggt cgtcaaggac	1200
atcgtcgagg acggcaagat cgtcgccgccc ggcggtgctc cggagatcga gctcagcatc	1260
aggctcgacg agtacgcgaa ggaggtcggc ggcaaggagc agctcgccat cgaggcc	1320
gcagaggccc tcaaggtcat tccgaggacc ctcgcccaga acgcccgtct cgacccgatc	1380
gagaccctcg ttaaggtcat cgccgcccac aaggagaagg gaccgaccat cgggtttgac	1440
gtcttcgagg gcgagccggc cgacatgctc gagcgcggcg tcatacgcccc ggtcagggtt	1500
ccgaaggcagg ccatcaagag cgccagcggag gccggcataa tgatcctcag gatcgacgac	1560
gtcatcgccg ccagcaagct cgagaaggac aaggagggcg gcaagggcgg tagcgaggac	1620
ttcggaaagcg atctcgactg a	1641

<210> 10  
<211> 35  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 10  
ggagatctgc ccagcttgca ggccagccag ttgtt 35

<210> 11  
<211> 35  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 11  
ccggatccga cgagatcgct tccgaagtcc tcgct 35

<210> 12  
<211> 76  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide linker

<400> 12  
ggcatatggg atccctggtt ccgcgtggct caagatctct cgagcatcgc catgccatc 60

gctaataggaa attccc 76

<210> 13  
<211> 76  
<212> DNA  
<213> Artificial

&lt;220&gt;

&lt;223&gt; Designed oligonucleotide linker

&lt;400&gt; 13

g g g a a t t c c t	a t t a g c g a t g	g c g a t g g c g a	t g c t c g a g a g	a t c t t g a g c c	a c g c g g a a c c	60
a g g g a t c c c a	t a t g c c					76

&lt;210&gt; 14

&lt;211&gt; 480

&lt;212&gt; DNA

&lt;213&gt; Thermococcus sp. KS-1

&lt;400&gt; 14

a t g a a g a t t g	a a g c t g g t g a	t t a t g t t c t c	t t c c a c t a c g	t t g g a a g g t t	c g a g g a t g g a	60
g a a g t t t t g	a c a c a a g c t a	c g a g g a g a t a	g c c a g a g a g a	a t g g c a t t c t	c g t c g a g g a g	120
a g g g a g t a c g	g c c c a a t g t g	g g t c a g g a t a	g g c g t c g g t g	a g a t c a t c c c	t g g c c t c g a t	180
g a a g c c a t a a	t t g g c a t g g a	a g c t g g a g a g	a a g a a g a c c g	t g a c c g t t c c	c c c c g a g a a g	240
g c t t a c g g a a	t g c c g a a c c c	a g a g c t t g t a	a t c t c c g t t c	c a a g g g a a g a	a t t c a c a a a g	300
g c c g g c c t t g	a a c c c a g g a	a g g t c t c t a c	g t c a t g a c c g	a t t c t g g c a t	a g c c a a g a t a	360
g t t t c c g t t g	g a g a g a g c g a	g g t a t c c c t t	g a c t t c a a c c	a c c c g c t a g c	a g g t a a g a c c	420
c t a g t c t t t g	a g g t a a g a g t	c a t a g a a g t a	a a a a a g g c c g	a a g a g g a c t c	a g a a g c t t a g	480

&lt;210&gt; 15

&lt;211&gt; 28

&lt;212&gt; DNA

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Designed oligonucleotide primer for PCR

&lt;400&gt; 15

g g c c a t g g g a	a a a g t t g a a g	c t g g t g a t	28
---------------------	---------------------	-----------------	----

<210> 16  
<211> 26  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 16  
ccactagtag cttctgagtc ctcttc 26

<210> 17  
<211> 40  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide linker

<400> 17  
ggactagtct ggttccgcgt ggatccata tggaatccgg 40

<210> 18  
<211> 40  
<212> DNA  
<213> Artificial

<220>  
<223> Designed olligonucleotide linker

<400> 18  
ccggattcca tatggatcc acgcggaacc agactagtcc 40

<210> 19  
<211> 24  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 19  
ggcatatgga tgtgctcagc cctg 24

<210> 20  
<211> 45  
<212> DNA  
<213> Artificial

<220>  
<223> Designed oligonucleotide primer for PCR

<400> 20 ccgagctcgc gatggcgatg gcgatgctgg cggcagaagt tacac 45